Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII(NEW) EXAMINATION – SUMMER 2019

Subject Code:2172902 Date:10/05/2019

Subject Name:Modern Weaving Technology

Time:02:30 PM TO 05:00 PM Total Marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

			MARKS
Q.1	**(a)**	State different types of weft accumulators used in shuttleless looms.	**03**
	(b)	Give the comparison between Profile reed & Confuser.	**04**
	(c)	With the help of neat diagram, explain the torsion bar mechanism of Sulzer projectile loom in detail.	**07**
Q.2	**(a)**	Discuss in brief about requirements of Selvedges.	**03**
	(b)	Discuss the importance of 'Short Quick Blast' of air from nozzle in Air jet loom.	**04**
	(c)	Enlist the Quick Style Change features available on modern shuttle less looms. Discuss any one in detail.	**07**
		OR	
	(c)	With the help of neat diagram, explain the let-off mechanism of Sulzer projectile loom in detail.	**07**
Q.3	**(a)**	Enlist the channels normally employed to measure accurately & individually the yarn faults & eliminate in yarn clearer.	**03**
	(b)	What are the limitations of rapier loom w.r.t. width changes? Which changes are required on loom when the width is to be changed?	**04**
	(c)	With the help of neat diagram, explain double rapier tip transfer type weft insertion system in detail.	**07**
		OR	
Q.3	**(a)**	Give the principle of Wet-in wet sow box.	**03**
	(b)	State some of the important areas of applications of rigid rapier looms.	**04**
	(c)	Explain picking mechanism of M8300 Multiphase loom with the help of neat diagrams.	**07**
Q.4	**(a)**	Give principle of Fluid jet looms.	**03**
	(b)	Discuss merits & demerits of water jet weaving machines.	**04**
	(c)	Write short note on: Projectile.	**07**
		OR	
Q.4	**(a)**	Water & air jet are not competitor but complementary to each other. Justify.	**03**
	(b)	Write in brief about Autotense FX.	**04**
	(c)	With neat diagram explain main stages of weft insertion in Water jet loom.	**07**
Q.5	**(a)**	Enlist the uses of Triaxial fabrics.	**03**
	(b)	Enlist the factors that influence filling insertion rate and machine speed in air jet weaving.	**04**
	(c)	Discuss the yarn quality requirement for shuttle less weaving.	**07**
		OR	
Q.5	**(a)**	Monofilament yarns are not suitable for air jet weaving machine. Give reason.	**03**
	(b)	What are the main functions of Weft supply system on Water jet loom?	**04**
	(c)	With a neat diagram explain the Picking system on Water jet weaving machine.	**07**